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RAW SEQUENCE LISTING PATENT APPLICATION US/09/422,999

DATE: 11/09/1999
TIME: 16:44:43

Input Set: I422999.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

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1  <110> APPLICANT: Kawasaki, Hiroaki
2      Graybiel, Ann
3      Housman, David
4  <120> TITLE OF INVENTION: Genes Integrating Signal Transduction Pathways
5  <130> FILE REFERENCE: MIT-103
6  <140> CURRENT APPLICATION NUMBER: US/09/422,999
7  <141> CURRENT FILING DATE: 1999-10-22
8  <150> EARLIER APPLICATION NUMBER: US 60/105,507
9  <151> EARLIER FILING DATE: 1998-10-23
10 <150> EARLIER APPLICATION NUMBER: US 60/108,685
11 <151> EARLIER FILING DATE: 1998-11-16
12 <160> NUMBER OF SEQ ID NOS: 18
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16 <212> TYPE: DNA
17 <213> ORGANISM: Mus musculus
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20 <222> LOCATION: (166)..(1989)
21 <223> OTHER INFORMATION: CalDAG-GEFI
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25      gctctgagag tgtaacttgg gtctagccca ctggcaccgg cagcc atg gcg agc act 177
26                                     Met Ala Ser Thr
27                                     1
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30      5 10 15 20
31      atc gaa gcc ttt gat gac tct gga aag gtg cga gat cca cag cta gtg 273
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34      cgc atg ttt ctc atg atg cac ccc tgg tac ata cct tcc tct cag ctg 321
35      Arg Met Phe Leu Met Met His Pro Trp Tyr Ile Pro Ser Ser Gln Leu
36      40 45 50
37      gct tcg aaa ctg ctc cac ttc tat cag caa tcc cgg aag gac aac tcc 369
38      Ala Ser Lys Leu Leu His Phe Tyr Gln Gln Ser Arg Lys Asp Asn Ser
39      55 60 65
40      aat tcc cta cag gtg aaa acc tgt cac ctg gtc agg tac tgg gtc tca 417
41      Asn Ser Leu Gln Val Lys Thr Cys His Leu Val Arg Tyr Trp Val Ser
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44      Ala Phe Pro Ala Glu Phe Asp Leu Asn Pro Glu Leu Ala Glu Pro Ile

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49	agc ctc atc gac atc gag agt gtc ccc acc tac aag tgg aag cgg cag				561
50	Ser Leu Ile Asp Ile Glu Ser Val Pro Thr Tyr Lys Trp Lys Arg Gln				
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52	gtg acc cag cgg aac cct gtg gaa cag aaa aag cgc aag atg tcc ctg				609
53	Val Thr Gln Arg Asn Pro Val Glu Gln Lys Lys Arg Lys Met Ser Leu				
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56	Leu Phe Asp His Leu Glu Pro Met Glu Leu Ala Glu His Leu Thr Tyr				
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58	ttg gag tat cgg tcc ttc tgc aag atc ctg ttc cag gac tat cac agc				705
59	Leu Glu Tyr Arg Ser Phe Cys Lys Ile Leu Phe Gln Asp Tyr His Ser				
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61	ttt gtg act cat ggc tgc act gta gac aat ccg gtc ctg gag cga ttc				753
62	Phe Val Thr His Gly Cys Thr Val Asp Asn Pro Val Leu Glu Arg Phe				
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64	atc tcc ctc ttc aac agt gtc tct cag tgg gtc caa ctc atg atc ctc				801
65	Ile Ser Leu Phe Asn Ser Val Ser Gln Trp Val Gln Leu Met Ile Leu				
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67	agc aag ccc aca gcc acg cag cgg gcg ctg gtc atc aca cat ttc gtg				849
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85	aag gat cta gtg gct ctg cag ctg gct ctg cct gac tgg ctg gac cca				1137
86	Lys Asp Leu Val Ala Leu Gln Leu Ala Leu Pro Asp Trp Leu Asp Pro				
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88	ggt cgg acc cgg ctc aat gga gcc aag atg agg cag ctt ttc agc att				1185
89	Gly Arg Thr Arg Leu Asn Gly Ala Lys Met Arg Gln Leu Phe Ser Ile				
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92	Leu Glu Glu Leu Ala Met Val Thr Ser Leu Arg Pro Pro Val Gln Ala				
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94	aac ccc gac ctg ctg agt ctg ctc acg gtg tcc ctg gac cag tat cag				1281

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98	Thr Glu Asp Glu Leu Tyr Gln Leu Ser Leu Gln Arg Glu Pro Arg Ser	
99	375 380 385	
100	aag tca tcg ccc acc agc ccc acc agc tgc acc ccg cct ccc cgg ccg	1377
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103	cct gtg ctg gaa gag tgg acc tca gtt gcc aag cct aag ctg gac caa	1425
104	Pro Val Leu Glu Glu Trp Thr Ser Val Ala Lys Pro Lys Leu Asp Gln	
105	405 410 415 420	
106	gcc ttg gtg gcc gag cac att gag aag atg gtg gag tct gtg ttc cgg	1473
107	Ala Leu Val Ala Glu His Ile Glu Lys Met Val Glu Ser Val Phe Arg	
108	425 430 435	
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112	atc atc cgg ggc aac ttc cct tat ctc agc gcc ttt ggg gac ttg gac	1569
113	Ile Ile Arg Gly Asn Phe Pro Tyr Leu Ser Ala Phe Gly Asp Leu Asp	
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115	cag aac cag gat ggc tgc atc agc cgg gag gag atg att tcc tac ttc	1617
116	Gln Asn Gln Asp Gly Cys Ile Ser Arg Glu Glu Met Ile Ser Tyr Phe	
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118	ctg cgc tcc agc tcc gtg ctg gga ggc cgc atg ggc ttc gta cac aac	1665
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122	Phe Gln Glu Ser Asn Ser Leu Arg Pro Val Ala Cys Arg His Cys Lys	
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129	535 540 545	
130	cgc cgc cgc gcc cag agt gtg agc ctg gag ggc tct gca ccc tct ccc	1857
131	Arg Arg Arg Ala Gln Ser Val Ser Leu Glu Gly Ser Ala Pro Ser Pro	
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133	tca ccc aca cat acc cac cat cgg gcc ttc agc ttc tcc ctg cct cgc	1905
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136	cca ggc agg cgc agc tct cgg cct cca gag atc cgt gaa gag gag gtg	1953
137	Pro Gly Arg Arg Ser Ser Arg Pro Pro Glu Ile Arg Glu Glu Glu Val	
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139	cag act gtg gaa gat ggt gtg ttc gac atc cac tta taagacgtg	1999
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143	ggattctggg gcaggagggtt ggggctgaag gtgggggaag ttgaagggtg catgcactga	2119
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157      35          40          45
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168      Trp Lys Arg Gln Val Thr Gln Arg Asn Pro Val Glu Gln Lys Lys Arg
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174      Asp Tyr His Ser Phe Val Thr His Gly Cys Thr Val Asp Asn Pro Val
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178      Leu Met Ile Leu Ser Lys Pro Thr Ala Thr Gln Arg Ala Leu Val Ile
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185      260         265         270
186      Trp Glu Gly Leu Thr Glu Leu Val Thr Ala Thr Gly Asn Tyr Ser Asn
187      275         280         285
188      Tyr Arg Arg Arg Leu Ala Ala Cys Val Gly Phe Arg Phe Pro Ile Leu
189      290         295         300
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192      Trp Leu Asp Pro Gly Arg Thr Arg Leu Asn Gly Ala Lys Met Arg Gln
193      325         330         335
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199          370          375          380
200  Glu Pro Arg Ser Lys Ser Ser Pro Thr Ser Pro Thr Ser Cys Thr Pro
201  385          390          395          400
202  Pro Pro Arg Pro Pro Val Leu Glu Glu Trp Thr Ser Val Ala Lys Pro
203          405          410          415
204  Lys Leu Asp Gln Ala Leu Val Ala Glu His Ile Glu Lys Met Val Glu
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206  Ser Val Phe Arg Asn Phe Asp Val Asp Gly Asp Gly His Ile Ser Gln
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241                                     1 5
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